



Maths Policy Statement.

(July 2016)

'Maths is a creative and highly inter-connected discipline that has been developed over centuries. It is essential to everyday life, critical to science, technology and engineering and necessary for financial literacy and most forms of employment' (National Curriculum, 2014). At Irthington Village School we recognise the importance of maths and want to help the children to fulfil their potential and become fluent mathematicians with an appreciation for the skill.

We aim to engage all children in high quality learning experiences in order to foster a passion for maths. This policy outlines all that is important to our school in the teaching and learning of our maths Curriculum.

Our aim is to ensure that all staff teach maths in the most effective way possible through the implementation of the Maths Programmes of Study as set out in the National Curriculum 2014. This will allow all our children to develop confidence, competence and understanding with regards to all fundamental maths skills, regardless of gender, ethnicity or social/economic background.

Aims

1. To promote enjoyment and curiosity of learning through practical activity, exploration, investigation and discussion.
2. To understand the importance of mathematics in everyday life.
3. To develop children's ability to move between concrete, iconic and symbolic representations fluently and confidently.
4. To promote confidence and competence with understanding and using numbers and the number system.
5. To develop the ability to solve problems through decision-making and reasoning in a range of contexts, and other curriculum areas.
6. To develop a practical understanding of the ways in which information is gathered and presented.
7. To explore features of shape and space, and develop measuring skills in a range of contexts.
8. To enable children to select and use a range of mathematical tools effectively.
9. To equip children with the mathematical language needed to understand problems and explain their methods and reasoning.
10. To promote and provide opportunities for children to develop the core learning skills of confidence, determination, curiosity, aspiration, teamwork, independence, communication and focus.

Outcomes

When a child leaves Irthington Village School at the end of Year 6 they will have:

- become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately;
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language;
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Curriculum Content, Planning and Resources

The school is following the 2014 Maths Programmes of Study for Key Stages 1 and 2. This is supported by schemes of work and resources from Abacus, Collins, Rising Stars, NCETM and Hamilton Trust. Each class has a range of resources to support mathematical understanding and facilitate practical learning.

Teachers will use the school calculation policy to inform their teaching and ensure a natural progression and uniform approach across the classes and Key Stages. Where appropriate, and especially because of mixed age classes, some skills and processes may be taught earlier or later in a Key Stage than set out in the programme of study.

Through weekly time-table tests and positive incentives, all staff will promote the effective learning of times-tables. All staff will encourage parents to support their child with the learning of these.

- By the end of Key Stage 1 it is expected that children will be able to recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables.
- By the end of Key Stage 2 (but ideally by the end of year 4) it is expected that the children will be able to recall multiplication and division facts for multiplication tables up to 12 x 12.

All maths lessons will be planned and appropriately differentiated. They will include opportunities for practical activities, group working, developing and using mental skills, using the vocabulary of maths, consolidation, problem solving, exploration and mastery of maths skills. Calculation and the four operations will feature prominently in the majority of lessons. There will be a 'can I' statement provided to the children to aid their understanding of what is being asked of them and to help them take ownership of their learning. Planned lessons will broadly follow the long-term yearly overview, as can be seen in the coverage document.

Early Years Foundation Stage

We teach mathematics in our Foundation Stage where we relate the mathematical aspects of the children's work to the objectives set out in the Early Learning Goals, which underpin the curriculum planning for children during the Early Years Foundation Stage. We give all the children ample opportunity to develop their understanding of number, measurement, pattern, shape and space, through varied activities that allow them to enjoy, explore, practise and talk confidently about mathematics. By the summer term Reception children will be having 5 maths lessons per week in.

School and Class Organisation

Five maths lessons are delivered from Year 1 to Year 6 each week. Maths is taught to the whole class, unless specific targeted arrangements have been made to meet the needs of an individual or group of individuals. These pupils will receive additional support from trained staff through intervention groups. These groups will change throughout the year depending on the progress and needs of different cohorts. Any intervention groups will be planned for explicitly, including the name of the member of staff delivering the lessons. Booster classes are also provided as and when necessary.

Children's targets are displayed on the tables and referred to during lessons. The target will match their 'Going for Gold' targets set out at the beginning of the year. However, there is the flexibility to adjust and alter them to meet the needs of the group of children. Cross curricular links to maths will be made explicit to the children within topic work.

Maths work will be carried out in books with squared paper to aid consistent setting out of work and reduction of calculation errors. Children will be encouraged to write one number per square. Children will carry out maths work in pencil and use a ruler when drawing lines. As they progress through the school they will get the opportunity to use measuring equipment, protractors, pairs of compasses and calculators.

Appropriate homework tasks will be set weekly, in line with the Homework Policy for the school, and will be marked accordingly as way of feedback.

Maths Learning Environment

We aim to create a rich and stimulating Maths environment that promotes learning and independence. Displays and resources in the classroom will:

- Support the children with their Maths.
- Contain information relevant to their Key Stage.
- Include Maths resources clearly labelled and accessible for the children.
- Be clear/large enough for children to read.
- Be referred to regularly to make them relevant.

Assessment

Assessment of the standard of children's work and rate of progress is measured through teachers' careful observation and marking of children's output in line with the school Marking Policy.

End of term assessments will be carried out using: Rising Stars Assessment, Progress in Understanding Mathematics Assessment (PUMA). These assessments provide a maths age and standardised score to inform the judgement of the teacher. They will also be used to identify gaps in the children's knowledge.

End of year assessment data is analysed in order to identify current strengths and weaknesses within the subject and to plan whole school improvements in maths teaching. The data is also used to help teachers devise personal targets for the children in their class.

Professional Development

It is important to recognise any particular difficulties staff may have in delivering the curriculum and a termly review will determine any additional subject leader input or whole school INSET which may be required.

SEN and Equal Opportunities

Our school aims to provide for children with Special Educational Needs with a curriculum that allows for appropriate differentiation. This may be by outcome, task, resources, support, interest or ability groupings as appropriate. Opportunities will be planned for children with SEN to work on their targets for maths within their maths session. These targets will be reviewed regularly and the interventions adapted as necessary.

Children with English as a Second Language

We ensure that children who have English as a second language are given extra support, as necessary, in class from teachers or peers, to enable them to gain the knowledge, understanding and skills set out in the maths Programmes of Study.

Parental Links

We maintain links with parents, informing them of and including them in their children's progress and explaining the school's approach to the teaching of maths through termly parent evenings and annual written reports. Parent correspondence is also encouraged through the homework tasks which are set. Parents are encouraged to project a positive attitude towards maths to their children, even if they don't have good memories of maths from when they were at school and/or find it difficult. Support for parents is offered when necessary and they have been invited into school for events linked to maths such as a 'teaching of calculation' guidance evening.

Review: This document will be reviewed annually by the staff and governors.

Simon Bulmer, July 2016.